

ABSTRACT

A map holding unit (89) holds, in the form of a map, a voltage control amount (V_{q_map}) of the q axis in a case where no demagnetization of a permanent magnet motor (60) occurs. Based on a motor revolution number, namely the number of revolutions of the motor (MRN) provided from a revolution number detection unit (81), a demagnetized state calculation unit (91) calculates a rotational angular velocity (ω). Then, based on the voltage control amount (V_{q_map}) from the map holding unit (89), a voltage control amount (V_q) to be controlled that is provided from a PI control unit (86) and the rotational angular velocity (ω), the demagnetized state calculation unit (91) calculates an amount of demagnetization ($= (V_{q_map} - V_q) / \omega$) and outputs, if the amount of demagnetization is greater than a predetermined value, an operation signal (OPE) for controlling the operation of the permanent magnet motor (60).